

PITMANESE PHONETICS.

Introduction to English, French, and German Phonetics, with Reading Lessons and Exercises. By Laura Soames. New Edition revised and edited by Wilhelm Viëtor, Ph.D., M.A. Pp. xxvii + 178 + 89. (London: Swan Sonnenschein and Co., Ltd., 1899.)

THIS new edition of Miss Soames's work, which was designed by the authoress to provide a convenient method of teaching the pronunciation of the English, French and German languages, will no doubt prove useful to those teachers who believe in the advisability of teaching pronunciation by means of Pitmanese. The book is in no sense a scientific treatise on phonetics; the portion which deals with the production of the sounds of the three languages treated of is simply a very good and useful exposition of the obvious: the main point of the book is the elaboration for teaching purposes of a phonetic alphabet which in many respects falls far short of our ideal of what a phonetic alphabet should be, if such a thing need be constructed for teaching or any other purpose at all, except for the use of scientific students of linguistic phenomena. *E.g.* the authoress uses "a" to express the indeterminate vowel-sound: now nobody ever pronounced *the* as "dha"; when it is not fully pronounced "dhi," it is pronounced as a German would pronounce "dhö": to write it "dha" is most misleading. Also, the final *-er* in English absolutely = the German *ö*; *crozier* is pronounced "krözyö," though Miss Soames would tell us to pronounce it "krözhar." She writes *gardener* as "gädnar": now if we pronounce a true *r* in *gardener* at all, it is most certainly in the first syllable (where it is usually sounded as a faint guttural, a sort of feeble *ayin*), and *not* at the end of the word: *gárdnö* or *gádnö*. Generally speaking, Miss Soames connives at the tendency of modern English to weaken the *r*, and represents it as being far weaker than it really is: in the same way the tendency to lose the distinction between *witch* and *which* is in no way combated by Miss Soames. She spells, most inconsistently, "when," "which," instead of "hwen," "hwich" (hwič), the proper phonetic spelling. Again, to teach a child to pronounce *Sassenach* as "Sasínæk" (Pt. i. p. 109), and *Lochinvar* as "Lokínvar" (Pt. ii. p. 64), is an extremely slipshod proceeding, if it be not a mere solecism on the part of the authoress.

In the German phonetic spelling one or two weak points may also be pointed out. The expression of hard *ch* by *x* is a mistake: this appears to give the ordinary symbol for *ks* in the Latin alphabet a value which it does not possess: every learner cannot be expected to know that the Greek X (Russian x), which does possess the value of hard *ch*, has been transported into Miss Soames's phonetic alphabet to express this value. It would have been better to have used the small Greek type and have written *Nacht* "Naxt," not "Naxt." We do not like the adoption of *ç* to represent final *-g* after front vowels and consonants, as in *Sieg*, *Berg*, &c., either; a wrong primary impression is again given, and the fact is lost sight of that it is an *h*-sound, not a *k*-sound, which is in question. Why not use the symbol well-known in the transliteration of Egyptian and Assyrian, *h*, for this sound, keeping *x* for hard *ch* and final *-g* in *Tag*, &c.? *Sieg* would

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then be phonetically written "Zih." Miss Soames also made *ç* stand for the *ch*-sound in *manches*; this is incorrect, *ch* here = "hy" ("månhyez"), a sound quite distinct from the final *-h* of *Sieg*.

The authoress appended a list of "Loan words used in English," a large portion of which is made up of words and phrases which are not loan words at all; *e.g.* *ancien régime* (!), *abattoir* (!!), and *Aphrodite* (!!!). On the other hand, such words as *abatis*, *acolade*, *aegis*, or *aguillette* (which is presumably what the authoress means by "aguille"), *are* loan words. In this list some mistakes of pronunciation occur, *e.g.* *a fortiori* should be pronounced on Miss Soames's system "ey fórtiô'rai," not "fôshiô'rai," a vulgarism which no person with the slightest intelligent knowledge of Latin would ever think of using; *anacoluthon* should be pronounced "ænako'lú'tho'n, sounding the *o*, not "ænako'lyû'than"; *Canaan* "Kanâ'an," not "Keynan"; *Koran* "Karân," not "Kôrân"; and *sheikh* "shêç" (German "Scheech"), not "shîk," which is a terrible mispronunciation. On p. 104, *Eisteáfodd* is given a superfluous final *d*; and on p. 99, the misprint *Bacchas* is noticeable.

On the whole, while this work may be regarded as generally useful for the purpose for which it is intended, it is unluckily marred by a tendency to perpetuate many incorrect and vulgar pronunciations, and even by several mistakes, some of them merely slipshod, others due to ignorance, which the reviser ought to have corrected.

OUR BOOK SHELF.

Psychologie der Naturvölker. By Dr. J. Schultze. Pp. xii + 392. (Leipzig: Veit and Co., 1900.)

IN this study of primitive culture, Dr. Schultze passes under review, from the standpoint of the psychologist, the material which is the common heritage of the anthropologists of to-day. Spite of the suspicions aroused by a sub-title of nineteen words, Dr. Schultze's volume is an unpretentious bit of work by a competent writer, whom no phantasy of construction or love of paradox has led astray from the patient use of authorities and the exercise of a sober judgment. Dr. Schultze's first essays in his subject were printed some thirty years ago. The present contribution is self-contained, though for its author it is but a part of a larger whole, preluded by physiological psychology and a treatise on the psychical life of plant and brute, and to be followed by a study of childhood. It is naturally evolutionist in conception, although the descriptive continuity which the author maintains is accompanied by the refusal to allow that the derivation of apperceptive consciousness from associational, which in the interests of a unitary view of nature he might desiderate, has been adequately made out. A feature of the book is the use made of English authorities. Not only Spencer and Tylor, but McLennan and Lubbock supply the writer with important doctrines, *e.g.* in his account of the evolution of marriage. Mr. Sutherland's "Origin and Growth of the Moral Instinct" is recognised as having anticipated Dr. Schultze in much which he would have been glad to have said, but, far from being dismissed with a *pereat*, is summarised in an appendix. It is on fetishism and animism that Dr. Schultze is most at home. Not that there is not much else of interest on the alleged superiority of vision among savages, on the concreteness of their philology, on the relation of rhythm to melody, on the difference of the sexes in regard to the sense of smell, on the evolution of the sense for landscape, and the like. But to the topics

of his earliest studies he returns as to a first love. On the soul-theories of savages and the corresponding eschatology he writes convincingly. The plurality of souls in pulse and blood and breath and shadow, the gradual elimination of some of these and the syncretism of the rest, the place of the dream image in the evolution of the cult of *manes* and in the selection of totems, the literal and unsymbolic character of the latter, the order in which the heavenly bodies enter into primitive worship—these are the points on which Dr. Schultze compresses year-long work into moments of insight and selective description. Believing, as he does, that Germany has a colonial future in direct contact with primitive stocks, Dr. Schultze offers his essay to the understanding of the savage as a help forward to the achievement of the educational mission of his country. A pious gift. H. W. B.

The Study of Bird-Life. By W. P. Pycraft. Pp. 240. Illustrated. (London: George Newnes, Ltd. 1900.)

THIS little volume belongs to "The Library of Useful Stories," now in course of issue by the publishers; and although it must have been difficult to compress a general review of the leading facts of bird-life into such a small compass, the author may be congratulated on the success of his attempt. As Mr. Pycraft is a morphologist rather than a systematist, it would naturally be expected that he would incline rather to the morphological and phylogenetic aspects of his subject, and this we find to be the case. We have, for example, an excellent chapter on the morphology of the bird's wing, while two others treat of avian pedigree, and a third is devoted to the distribution of birds in space and time. Perhaps the most specially interesting chapter in the volume is the one dealing with the flightless birds and their fate, since this is a subject on which the author is peculiarly qualified to speak with authority.

Although, of necessity, written from a purely popular standpoint, the volume contains many passages which are well worth the attention of the scientific ornithologist. If there be a fault, it is the introduction of irrelevant matter, the place of which might have been better occupied by details pertaining to the subject in hand. And if a second edition be called for, the author will perhaps be inclined to modify the statement in the tenth chapter, that "the kind of rock" in which bird-remains are found is sufficient to give a notion "of the bird-life of that particular period of the earth's history." R. L.

An Introduction to the Differential and Integral Calculus and Differential Equations. By F. G. Taylor, M.A., B.Sc. Pp. xxiv + 568. (London: Longmans, Green and Co., 1899.)

THE appearance of still another treatise of this kind shows how earnest and how prevalent is the desire to introduce students of physics to a knowledge of the calculus at as early a stage in their career as possible.

The author has studied simplicity of treatment, but has evidently striven to secure accuracy as well as clearness and distinctness in his exposition of the principles of the subject. A special feature, which will be of great advantage to the ordinary student, is the detailed discussion of numerous examples.

Interspersed throughout the several chapters the student will also find an abundance of not too-difficult exercises carefully graduated and with answers appended.

A fair and not excessive amount of space is devoted to the subject of curves, and the illustrative diagrams are distinctly drawn.

The section on the integral calculus concludes with applications to volumes and surfaces of revolution, centroids, and moments of inertia.

The last section of the book forms a good introduction to the methods of dealing with ordinary differential equations of the first and second orders.

ENGLAND'S NEGLECT OF SCIENCE.

JUST before the first movement organised by Lord Roberts there was probably not one thinking person in England who was not ready to vote for an immediate change in all sorts of English methods of doing things. Consequently everybody was willing to listen to the advice of men who had for years been crying in the wilderness and prophesying disaster. Now, however, that we have worried through our military trouble, we shall probably feel so much ashamed of our intense fright as to put aside most of our desire for reform, and even to have less thought of it than before the war began. It is, therefore, the duty of those who have earned the right to a hearing to prevent the nation from sinking down into its sleepy acquiescence with old methods of working; and I am glad to see that Sir Norman Lockyer, in his speech at the Royal Academy dinner, referred to scientific education as a great, necessary line of defence of our country, secondary only to that of our naval and military forces. Again, two articles have appeared in the *Kölnische Zeitung* (March 10 and 11), which criticise our manufacturing and business and military want of method with an un-sparing pen. The German writer and many English writers seem to think that we ought to copy Germany. Nobody can feel more than I do the great necessity which exists for reform; but I think that our reform must be far more thorough than anything which can be regarded as a mere copying of Germany; the methods which we adopt must be English methods, invented by Englishmen for Englishmen. If our methods are to help to lead in the future to a history comparable in glory with the history of the past, there must be a great common-sense reform in education in England from top to toe. My friends, Profs. Ayrton and Armstrong, and I have so often pointed out the deficiencies of England in matters which we have carefully studied here and in foreign countries, that I hardly know whether an idea on this subject is my own or one of theirs; I do know, however, that we preach often on this subject, and that we never seem to be much attended to.

One thing that seems to be quite exasperating is that almost all the most important, the most brilliant, the most expensively educated people in England; our poets and novelists; our legislators and lawyers; our soldiers and sailors; our great manufacturers and merchants; our clergymen and schoolmasters, are quite ignorant of physical science; and it may almost be said that in spite of these clever ignorant men, and men like them in other countries, through the agency of a few men who are not ignorant, all the conditions of civilisation are being completely transformed. I do not merely mean here ignorance of the principles of science, I mean also ignorance of all those methods of working which come from experimental and observational scientific training. The great men go occasionally to popular scientific lectures (as they go to the Royal Academy), and they think that they comprehend something of the latest scientific discoveries because they have seen some fireworks and lantern slides; they are genial to scientific men when they meet them at dinner parties; but, in truth, scientific men are as much outside their counsels as sculptors or painters, or musicians or ballet-dancers. Among these great men a few visits to Albemarle Street are sufficient to create a reputation for science. I wish to show that this ignorance of our great men tends to create ignorance in our future leaders; is hurtful to the strength of the nation now, and retards our development in all ways.

These great men really direct the building of ships of war, and the creation of munitions of war; that is, they select the men who have to do these things, and they also lay down the unscientific rules which prevent their selected men from doing their work scientifically.

I will give an example. They order that the building